REMARKS

Rejection of Claims of Art Grounds in the 25 July 2005, Office Action,

and Traversal Thereof

In the 27 July 2005 Office Action, claims 1, 5-9, 12-19, 23-24, 27-32, 36-40, 43-50, 54-55, 53-63, 66-67 and 70 stand rejected under 35 U.S.C. 102(e) as being anticipated by Carpenter-Smith (U.S. 5,838,973). Claims 2-4, 10-11, 20-22, 25-26, 33-35, 41-42, 51-53, 56-57, 64-65 and 68-69 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter-Smith (U.S. 5,838,973) in view of Mutschler (U.S. 6,381,743).

The above rejections of the claims 1, 5-9, 12-19, 23-24, 27-32, 36-40, 43-50, 54-55, 58-63, 66-67 and 70 are traversed, and consideration of the patentability of claims 2-4, 10-11, 20-22, 25-26, 33-35, 41-42, 51-53, 56-57, 64-65 and 68-69, as amended, is requested in light of the ensuing remarks.

The Claimed Invention Is Novel Over Carpenter-Smith (U.S. Patent No. 5,838,973)

As stated in MPEP §2131, a claim is anticipated under §102 only if each and every element as set forth in the claim, in as complete of detail, is found in a single prior art reference. The claimed invention, according to the currently amended independent claims, includes recitations for synchronizing a textual representation with the graphical representation so that a modification in one representation is automatically visible in the other representation. Carpenter-Smith does not disclose the synchronizing step as claimed. Instead, Carpenter-Smith discloses a computerized modeling system that "guides the user through the object-oriented design process." Therefore, Carpenter-Smith does not anticipate the claimed invention.

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Support for the current amendments can be found as original in paragraphs [0019].

and [0059] of the present application. For example, paragraph [0019] discloses that the

graphical and textual views are <u>synchronized</u> so that a modification in one view is

<u>automatically</u> reflected in the other view. Paragraph [0059] discloses that if a change is made

to the source code via the graphical representation, the textual representation is updated

<u>automatically</u>, thereby <u>synchronizing</u> the two representations. Similarly, if a change is made

to the source code via the textual representation, the graphical representation is updated to

remain synchronized. Therefore, no new matter has been added by this amendment.

<u>The Claimed Invention Is Not Obvious Over The Cited References</u>

A claimed invention may be found to have been obvious "if the differences between

the subject matter sought to be patented and the prior art are such that the subject matter as a

whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a).

Moreover, the Federal Circuit has ruled on numerous occasions that a holding of

"obviousness" requires some motivation, suggestion or teaching within the cited references

that would lead one skilled in the art to modify the cited reference or references as claimed

by applicant. See, for example, *In re Kotzab*, 217 F3d 1365, 55 USPQ2d 1313 (Fed Cir.

2000):

> "Most if not all inventions arise from a combination of old elements. *See In re
> Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every
> element of a claimed invention may often be found in the prior art. However,
> identification in the prior art of each individual part claimed is insufficient to defeat
> patentability of the whole claimed invention. Rather, to establish obviousness based
> on a combination of the elements disclosed in the prior art, there must be some
> motivation, suggestion or teaching of the desirability of making the specific
> combination that was made by the applicant. See *In re Dance*, 160 F.3d 1339, 1343,

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48 USPQ2d 1635, 1637 (Fed. Cir. 1998); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996)."

The cited Carpenter-Smith patent and the cited Mutschler patent describe software tools. The Carpenter-Smith software is a computerized modeling system that "guides the user through the object-oriented design process." The Mutschler software is useful for interchanging metadata between modeling tools and metadata repositories in distributed heterogeneous environments.

Applicant's claimed software tool would not have been obvious to one of ordinary skill in the art from the disclosures of Carpenter-Smith and Mutschler. Specifically, Carpenter-Smith does not disclose or suggest step of synchronizing a textual representation with the graphical representation so that a modification in one representation is automatically visible in the other representation, as claimed.

Conventional software development tools such as Carpenter-Smith allow a programmer to view a graphical representation such as UML while viewing a textual representation of source code. However, with most ordinary software development tools, the source code is stored in a file, and a reverse engineering module converts the source code into a representation of the software project in a database or repository. A software project being developed using a software development tool comprises source code in at least one file which, when compiled, forms a sequence of instructions to be run by the data processing system. The repository generates the graphical representation, which is normally UML. If any changes are made to the graphical representation, they are automatically reflected in the repository, and a code generator converts the representation in the repository into source

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code. Such conventional software development tools, however, do not synchronize the displays of the graphical representation and textual representations of the source code. Rather, the repository typically stores the graphical representation of the software project, while the file stores the textual representation. A modification in the graphical representation does not appear in the textual representation unless the code generator re-generates the source code from the data in the repository. When this occurs, the entire source code (i.e., the textual representation) is rewritten. Similarly, any modifications made to the source code do not appear in the graphical representation unless the reverse engineering module updates the repository. As a result, redundant information is stored in the repository and the source code. In addition, rather than making incremental changes to the source code, conventional software development tools rewrite the overall source code when modifications are made to the graphical representation, resulting in wasted processing time. This type of manual, large-grained synchronization requires either human intervention such as disclosed by Carpenter-Smith, or a "batch" style process to try to keep the two views (the graphical representation and the source code) in synchronization. This approach, adopted by many tools, *including the cited references*, leads to many undesirable side-effects, including desired changes to the source code being overwritten by the tool.
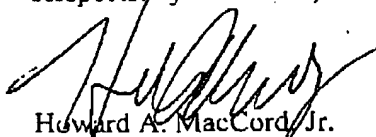
The improved software development tool of the present invention allows a developer to simultaneously view a graphical and a textual display of source code. The graphical and textual views are automatically synchronized by computerized method so that a modification in one view is automatically reflected in the other view. Neither Carpenter-Smith nor Mutschler synchronize graphical and textual representations of source code. Moreover, there is no suggestion, teaching or motivation for combining Mutschler with Carpenter-Smith to

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come up with the present invention as now claimed. In addition, the references cited but not

applied, alone or in combination fail to contain any teaching or suggestion of a method that

includes a step of synchronizing a textual representation with the graphical representation so

that a modification in one representation is automatically visible in the other representation.

CONCLUSION

In view of the foregoing amendments and for the above reasons, it is believed that

this application is now in condition for allowance. If unresolved issues remain, the Examiner

is invited to telephone applicant's attorney at the number below.

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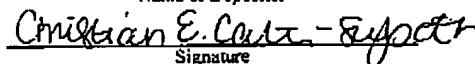Respectfully submitted,

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